

TOPIC TAGS: parabolic quasi linear equation, parabolic equation numerical  
 three-level scheme, two level scheme

ABSTRACT: High-accuracy finite-difference schemes for the solution of  
 the equation

$$\frac{\partial u}{\partial t} = \frac{\partial}{\partial x} \left( \frac{\partial u}{\partial x} \right) + f(t, x, u)$$

in the rectangular domain  $G(0 < t \leq T, 0 < x < L)$  with certain boundary and initial conditions are constructed and analyzed. Certain auxiliary formulas are derived for the construction of the finite-difference equations which are solved by the three-level scheme. The stability of the three-level scheme is proved. The scheme is applied to the solution of the problem.

Card 1/2

L 26314-6;

ACCESSION NR: AP5005559

of computation is analyzed. It is shown that when  $h$  and  $l = h^2/\ell$ , where  $h$  and  $\ell$  are the dimensions of the mesh of a rectangular net satisfying certain conditions, the process of computation converged and numerical solutions of the problem of the motion of a particle in a magnetic field with a given initial position and velocity are obtained with an error of the order of  $O(h^4)$ . It is asserted that the obtained results can be extended with certain insignificant modifications to the case of the equation

$$\frac{\partial^2 u}{\partial x^2} = A(t, x) \frac{\partial u}{\partial t} + B(t, x) \frac{\partial u}{\partial x} + C(t, x, u). \quad (2)$$

Orig. art. has: 30 formulas.

[LK]

ASSOCIATION: Tbilisskiy gosudarstvennyy universitet (Tiflis State University)

SUBMITTED: 16Mar64

ENCL: 00

SUB CODE: MA

NO REF SOV: 001

OTHER: 000

ATD PRESS: 3187

Card 2/2

L 51082-65 EWT(d) Pg-4 - RIF(c)  
ACCESSION NR: AP5011822

UR/0251/65/038/001/001/0022

AUTHOR: Gordaziani, D. G.

TITLE: Use of rhomboid grids for solving the heat equation

SOURCE: AN GruzSSR. Soobshcheniya, v. 38, no. 2, 1965, 15-22

TOPIC TAGS: finite difference, differential equation /6

ABSTRACT: Under the assumption of a sixth order smooth solution of

$$\Delta u = A(t) \frac{\partial u}{\partial t} + C(t, x, y) u, \quad \left( \Delta \equiv \frac{\partial^2}{\partial x^2} + \frac{\partial^2}{\partial y^2} \right), \quad (1)$$

$$\text{satisfying} \quad \left. \begin{aligned} u(0, x, y) &= f(x, y), \quad (x, y) \in G, \\ u(t, x, y) &= \varphi(t, x, y), \quad (x, y) \in \gamma, \quad 0 < t < T, \end{aligned} \right\} \quad (2)$$

for  $0 < t \leq T$  where  $G$  is a region in the  $x, y$  plane,  $\gamma$  is the boundary contour of  $G$ ,  $A(t) \geq \alpha > 0$ ,  $f(x, y)$  and  $\varphi(t, x, y)$  are continuous and  $f(x, y) = \varphi(0, x, y)$ ,  $x, y \in \gamma$  and with  $A_t^{(4)}$ ,  $C_x^{(4)}$ ,  $C_y^{(4)}$  continuous on  $\bar{D} = \{(x, y) \in G, t \in [0, T]\}$ ,

Card 1/2

L 51042-53

ACCESSION NR: AP5011822

the author studies an explicit finite difference scheme of high accuracy using a rhomboid grid. He proves a theorem giving the rate of convergence of the solution of the difference scheme to that of the equation. Orig article in formulas.

ASSOCIATION: Tbilisskiy gosudarstvennyy universitet (Tbilisi State University)

SUBMITTED: 24Jun64

ENCL: 00

SUB CODE: MA, TD

NO REF SOV: 003

OTHER: 000

Card 2/2

L IQ115-66 EWT(d) LJP(c)

ACC NR: AP6000731

SOURCE CODE: UR/0251/65/039/003/0535/0541

AUTHOR: Gordeziani, D. G. 32  
B

ORG: Academy of Sciences, Georgian SSR, Tbilisi Mathematical Institute im. A. M. Razmadze (Akademiya nauk Gruzinskoy SSR, Tbilisskiy matematicheskiy institut)

TITLE: Use of a locally one-dimensional method for solving a multidimensional parabolic equation of order 2m 16.44  
55.44

SOURCE: AN GruzSSR. Soobshcheniya, v. 39, no. 3, 1965, 535-541

TOPIC TAGS: differential equation, parabolic equation

ABSTRACT: The author shows the applicability of the locally one-dimensional method of A. A. Samarsky (Ob odnom ekonomichnom raznostnom metode resheniya mnogomernogo parabolicheskogo uravneniya v proizvol'noy oblasti. Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki, 2, No. 5, 1962, 787-811) to the solution of

$$\frac{\partial u}{\partial t} = \sum_{i=1}^n L_i u_i \quad (1)$$

$$\left( u, \frac{\partial^2 u}{\partial y^2}, \dots, \frac{\partial^{2(m-1)} u}{\partial y^{2(m-1)}} \right) \Big|_R = (0, 0, \dots, 0) \quad (2)$$

$$u(0, x) = f(x), \quad x \equiv (x_1, x_2, \dots, x_n) \in \bar{G}. \quad (3)$$

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ACC NR: AP6000731

He shows that under given conditions the difference problem

$$\theta L_{h_n} U^{k+1/p} + (1 - \theta) L_{h_n} U^{k+(-1)/p} = U_{I_n} \quad (0 \leq \theta \leq 1) \quad (4)$$

$$\tilde{\partial}_q U \Big|_{x_n=0} = 0 \quad (q = 0, 1, \dots, m-1; \alpha = 1, 2, \dots, p), \quad t \in \omega \tau \quad (5)$$

$$U(0, x) = f(x), \quad x \equiv (x^{(1)}, x^{(2)}, \dots, x^{(m)}) \in \bar{\omega}_h \quad (6)$$

has a unique stable solution which converges in mean to the solution of (1) - (3). This paper was presented by Sh. Ye. Nikeladze on 15 March 1965. Orig. art. has: 14 formulas.

SUB CODE: 12/ SUBM DATE: 15Mar65/ ORIG REF: 004

Cord

2/2

GORDEZIANI, Karlo Shalvovich; GORDEZIANI, Marlen Shalvovich;  
GAPRINDASHVILI, Iosif Silovanovich .

[Labeled atoms and their use in agriculture] [Mechenye  
atomy i ikh primeneniye v sel'skom khoziaistve. Tbilisi,  
Sabchota Sakartvelo] 1965. 138 p. [In Georgian]  
(MIRA 18:8)

GORDEZIANI, Karlo Shalvovich; GORDEZIANI, Marlen Shalvovich;  
GAPRINDASHVILI, Iosif Silovanovich .

[Labeled atoms and their use in agriculture] [Mechenye  
atomy i ikh.primenenie v sel'skom khoziaistve. Tbilisi,  
Sabchota Sakartvelo] 1965. 138 p. [In Georgian]  
(MIRA 18:8)



RIUKHADZE, D.A., inzh.; GORDEZIANI, N.N., inzh.

Determining the optimum height of high-basicity sinter  
burdens. Stal' 20 no. 12:1074 D '60. (MIRA 13:12)  
(Sintering)

MALYSHEV, S.I., inzh.; KHOSHTARIYA, Sh.F., inzh.; GLADKOSKOK, P.P., inzh.;  
RADCHENKO, F.G., inzh.; Primali uchastiye: BOKOLISHVILI, Sh.S.;  
RUKHADZE, R.I.; SHARASHIDZE, S.Sh.; BEREZHNOY, N.; GORDEZIANI, N.N.;  
RUKHADZE, D.A.; TATARADZE, Z.

Mastering the sintering of Dashkesan ores as acceptable charge for  
open-hearth furnaces. Stal' 20 no. 7:584-590 U1 '60. (MIRA 14:5)

1. Zakavkazskiy metallurgicheskiy zavod.  
(Dashkesan--Iron ores) (Sintering)  
(Open-hearth furnaces--Equipment and supplies)

RUKHADZE, D.A., inzh.; GORDEZIANI, N.W., inzh.

Blast furnace operations on natural gas. Stal' 20 no. 12:1074  
D '60. (MIRA 13:12)  
(Blast furnaces--Equipment and supplies)

KASHAKASHVILI, N.V.; GLADKOSKOK, P.P.; KHOSHTARIYA, Sh.F.; MINDELI, M.Sh.  
Prinimali uchastiye: PARASTASHVILI, V.V.; KOBERIDZE, V.G.;  
CHKHEIDZE, Z.A.; RUKHADZE, E.A.; KENKEBASHVILI, O.A.; SHARASHIDZE,  
S. Sh.; GOGISHVILI, A.G.; MELKADZE, N.V.; DZAMASHVILI, A.V.;  
GORDEZIANI, N.N.; ABRAMISHVILI, R.N.

Performance of Transcaucasia Metallurgical Plant blast fur-  
naces operating on natural gas. Trudy GPI [Gruz.] no.4:11-23  
'62 (MIRA 17:8)

KASHAKASHVILI, N.V.; SHARADZENIDZE, S.A.; MALYSHEV, S.I.; CHKHEIDZE, Z.A.  
GIBRADZE, Sh.S.; KHOSHTARIYA, Sh.F.; RUKHADZE, D.A.; SHARASHIDZE,  
S. Sh. Prinsipali uchastiya: SHENGELAYA, V.; OKROMCHEDLISHVILI,  
Sh.; POPIASHVILI, Sh.; LOIUA, K.; MINDELI, M.; TSKHELISHVILI, D.;  
GORDEZIANI, N.; ODIKADZE, Ch.; TATARADZE, Z.; KHUTSISHVILI, A.

Production and use of highly basic, open-hearth furnace sinters  
from Dashkesan iron ore. Trudy GPI [Gruz.] no. 4: 25-32 '62  
(MIRA 17:8)

RUKHADZE, D.A., inzh.; ~~GORDEZIANI, N.N., inzh.~~

Sintering high-basicity mixtures at the Rustavi metallurgical plant.  
Stal' 23 no.6:499 Je '63. (MIRA 16:10)

1. Rustavskiy metallurgicheskiy zavod.

USSR / Human and Animal Physiology. Heart.

T

Abs Jour : Ref Zhur - Biol., No 15, 1958, No. 70156

Author : Gordeziani, Sh. G.

Inst : Tbilisi Medical Institute

Title : Collaterals and Collateral Circulation in the Heart in  
Experimental Omentocardiopexy

Orig Pub : Tr. Kafedry operativn. khirurgii i topogr. anatomii.  
Tbilissk. med. in-t, 1956, Vol 1, 181-187

Abstract : In 14 dogs a ligature was applied to the descending branch  
of the left coronary artery, and the omentum was sutured  
to the myocardium. In ten days, three months, and six  
months, corrosion preparations were made. By six months  
after operation, vascular anastomoses between the myocardium  
and the omentum could be seen.

Card 1/1

MATIL', F.

"Material on surgical treatment of coronary insufficiency" by  
Sh.G. Gordeziani. Reviewed by F. Matil'. Khirurgia 34 no.6:143  
Je '58 (MIRA 11:8)

(CORONARY VESSELS--SURGERY)  
(GORDEZIANI, Sh.G.)



GORDI, U.

33915. Mikrovolnovaya Spektroskopiya (Pyer. S Angl.) Uspekhi Fiz. Nauk, T, XXXIX, VYP. 2, 1949, C.201-98. —Bibliogr: C. 293-98.

S6: Letopis' Zhurnal'nykh Statey, Vol. 46, Moskva, 1949.

GORDIAN, N. M.

USSR/Microbiology - Antibiosis and Symbiosis. Antibiotics.

F-2

Abs Jour : Ref Zhur - Biologiya, No 7, 1957, 26291

Author : Margolina, M.I., Gordian, N.M., Kamraz, M.I.

Inst : Kharkov Institute of Vaccines and Serums

Title : Experimental Study of the Effect of Garlic Phytoncides on Dysenteric Bacteria.

Orig Pub : Khar'kovsk. n.-i. in-ta vaktain i syvorotok, 1955, 22, 75-79

Abst : All 123 of the dysentery bacteria cultures were found to be sensitive to garlic phytoncides (I). Culture growth in bouillon was arrested by garlic juice when diluted to 1: 400 - 1: 80. The greatest sensitivity to I was evidenced by the Grigoryev-Shig dysentery bacillus. No difference was noted in the sensitivities of freshly cultured and museum strains. Culture in a medium containing I did not increase the resistance of the cultures. Continued cultivation in media containing I

Card 1/2

USSR/Microbiology - Antibiosis and Symbiosis. Antibiotics.

F-2

Abs Jour : Ref Zhur - Biologiya, No 7, 1957, 26291

brought about modifications in the morphological properties of dysenteric cultures (large numbers of long filamentous and coccus-type forms appeared, R-colonies predominated), but biochemical properties and agglutinability remained the same. I is not toxic for white mice. Over one month, the activity of I decreased by 2, and by 4 to 10 times in three months.

Card. 2/2

GORDIC, Z.

"Local roads in Serbia."

p. 15 (Put I Saobracaj) No. 7, July 1957  
Belgrade, Yugoslavia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958

GORDIKOV, A.V.; ROSSOMAKHIN, M.V.

Transverse gradients of the water surface of an inundated  
flood plain (exemplified by the Irtysh River). Trudy GGI  
no.88:109-124 '61. (MIRA 15:2)  
(Irtysh River--Hydrology)

ANDREYEV, S.G.; GORDIKOV, N.V.; RUMYANTSEV, A.T., red.; KOREYSHO,  
Ye.G., red.; DEYEVA, V.M., tekhn.red.

[Local fertilizers; advanced practices in their acquisition  
and usage] Mestnye udobrenia; peredovoi opyt nakopleniia  
i primeneniia. Moskva, Gos.isd-vo sel'khoz.lit-ry, 1960.  
206 p. (MIRA 14:2)

(Fertilizers and manures)

BUZENKOV, G.M.; GORDIKOV, N.V.; ANDREYEV, S.G.; KOREYSHO, Ye.G., red.;  
GOR'KOVA, Z.D., tekhn. red.

[Corn in new regions; advanced cultivation practices] Kukuruz v  
novykh raionakh; peredovoi opyt vozdeleyvaniia. Moskva, Gos. izd-  
vo sel'khoz. lit-ry, 1960. 136 p. (MIRA 14:6)  
(Corn (Maize))

ANDREYEV, S.V., prof.; KRAVCHENKO, A.T., prof.; NAUMENKO, V.G., kand. med. nauk;  
Prinimali uchastiye: GORDILOVA, V.V., prof.; YESIPOVA, I.K., prof.;  
SMOL'YANINOV, V.M., prof.; SOKOLOV, M.I., prof.

Dissertations on pathological and microbiological problems; current  
state and future prospects. Sov. med. 27 no.6:147-151 Ja '64.  
(MIRA 18:1)



GORDIN, A. M.

AID P - 3002

Subject : USSR/Electricity

Card 1/1 Pub. 29 - 17/28

Authors : Tarakanova, Ye. N., I. I. Ryabushkin, and A. M. Gordin,  
Engs.

Title : Movable installations of power capacitors

Periodical : Energetik, 6, 26-27, Je 1955

Abstract : A major work was done at the establishments of the Karaganda Coal Combine in order to raise the power factor. The basic measure consisted in introducing synchronous motors in ventilating and compressor installations and also synchronous converters and static capacitors at the central substations of the combine. The author describes the details of these installations. Three diagrams, one table.

Institution : None

Submitted : No date

(KORDIN, A.Yu.; MILL', L.A.

Industrial training shops. Politekh.obuch. no.511-17 My '59.  
(MIRA 12:7)

1. Srednyaya shkola No.544 g.Moskvy.  
(Moscow--Manual training)

GORDIN, B.I.

Scientific and technical conference on the manufacture of high-voltage  
apparatus. Elektrotehnika 35 no.4:64 Ap '64. (MIRA 17:4)

GORDIN, B.L.

DECEASED  
c 1959

1961/3

SEE ILC

HYGIENE AND SANITATION

GORDIN, B.S., inzhener.

Manufacture of wall brick from power plant slag. Biul.stroi.tekh. 10 no.12:  
13-14 JI '53. (MLRA 6:8)  
(Bricks) (Slag)

GORDIN, E.I.

The Beslan corn combine. Uch. zap. Fed. inst. Geriz: 169:193-199  
'59. (MIRA 14:1)

(Beslan—Food industry)

GORDIN, G.A.

Berlyand, A.S. and Gordin, G.A. "On a method of determining the speed of blood circulation",  
Vracheb. delo, 1949, No. 1, paragraphs 33-36.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 9, 1949)

SORKINA, A.I.; GORDIN, G.B.

Late results of operative treatment of a serious form of hyperparathyroid osteodystrophy with calcareous metastases. Probl. endok. i gorm. 11 no.1:58-60 Ja-F '65. (MIRA 18:5)

1. Kafedra obshchey khirurgii (zav. - prof. A.I. Sorkina) Irkutskogo meditsinskogo instituta na baze gorodskoy klinicheskoy bol'nitsy (glavnyy vrach A.F. Demidova).



FILIPPOV, N.A.; GORDIN, I.M., inzhener, redaktor.

[Bricklaying by a 4-man team] Kirpichnaya kladka svenom-chetverkoi.  
Leningrad, Gos. izd-vo lit-ry po stroitel'stvu i arkhitekture, 1953, 41 p.  
(MLRA 7:6)

(Bricklaying)

GORDIN, Iosif Mikhaylovich; VODAKOV, A.A., inzhener, nauchnyy redaktor;  
KAPLAN, M.Ya., redaktor; FUL'KINA, Ye.A., tekhnicheskiiy redaktor.

[Extensible panel scaffolding for bricklaying] Panel'nye razdvizh-  
nye podmosti dlia kirpichnoi kladki. Leningrad, Gos. izd-vo lit-ry  
po stroitel'stvu i arkhitekture, 1954. 46 p. (MLRA 8:1)  
(Bricklaying) (Scaffolding)

ZHELTIKOV, V.F.; GORDIN, I.M.; SPIVAKOV, M.S.; ALEKSEYEV, N.P.; VODAKOV, A.A.

Adjustable scaffolding for bricklaying. Rats. i izobr. predl. v stroi.  
no.91:7-9 '54. (MIRA 8:8)

1. Trešt lennakhmontashstroy ispolkoma Lengorsoveta.  
(Bricklaying) (Scaffolding)

*Gordin, I.M.*

BHSPALOV, Ivan Vasil'yevich, ~~GORDIN, I.M.~~, inzhener, nauchnyy redaktor;  
KAPLAN, M.Ya., redaktor izdatel'stva; PUL'KINA, Ye.A., tekhnicheskiy  
redaktor

[Assembling precast concrete elements; for work superintendents and  
foremen] Montazh sbornogo zhelezobetona dlia proizvoditelei rabot i  
masterov. Leningrad, Gos.izd-vo lit-ry po stroit. i arkhit., 1957.  
131 p. (MLRA 10:9)

(Precast concrete construction)

GORDIN, I.M.; MURATKHAN, V.P.; PANOV, V.K.; KRAVTSOV, G.Ya., red.;  
PARAKHINA, N.L., tekhn. red.; PROKOF'YEVA, L.N., tekhn.red.

[Organization and performance of land improvement construction work] Organizatsiia i proizvodstvo meliorativno-stroitel'nykh rabot. Moskva, Sel'khozizdat, 1963. 327 p.  
(MIRA 17:3)

GORDIN, L.Yu.; KOROTOV, V.M.

"Tales of the life of the brain." Z.Kosenko, A. Remezova. Reviewed  
by L.IU. Gordin, V.M. Korotov. Est. v shkole no.3:86-89 My-~~86-89~~  
(MLRA 7:7)

1. Uchitel' shkoly no.700 g. Moskv (for Gordin) 2. Uchitel'  
shkoly no.200 g. Moskv (for Korotov)  
(Kosenko, Z.) (Remezova, A.) (Brain)

GORDIN, M.D. BORISOVICH, G.F.

Tasks of the synthetic rubber industry in the sixth five-year  
plan. Khim. nauka i prom. 2 no.3:274-279 '57. (MLRA 10:8)  
(Rubber industry)

GORDIN, M. D.

AUTHORS: Gordin, M. D., Borisovich, G. F. 64 - 7 - 2/12

TITLE: The Industry of Synthetic Rubber (Caoutchouc) - on the Occasion of the 40th Anniversary of the Soviet Republic (Promyshlennost' sinteticheskogo kauchuka k 40-letiyu Sovetskogo gosudarstva).

PERIODICAL: Khimicheskaya Promyshlennost', 1957, Nr 7, pp. (392)8 - (396)12 (USSR)

ABSTRACT: As early as in the years around 1920, Soviet scientific experts succeeded in producing synthetic rubber caoutchouc) from "butadien" (obtained from ethyl alcohol by means of a one-stage catalysis) which was subsequently subjected to polymerization under the influence of metallic sodium. In Spring 1931 the Soviets began with the construction of the first factories in Yaroslavl', Voronezh and Yefromovo and on July 4, 1932, the first 400 kg of synthetic Soviet rubber were obtained. Large scale production in other countries was carried out much later only: In Germany, in 1937, in the United States only in 1942. A survey of the further development up to the present is given. The projects for the period

CARD 1/3



The Industry of Synthetic Rubber (caoutchouc) -- on the 64 - 7 - 2/12  
Occasion of the 40th Anniversary of the Soviet Republic

of 1951 to 1955 could not be accomplished for lack of both material and workmen. But the Sovjets want to make up for this, now. The assortment of synthetic rubber has become very rich: SKB-sodium- butadiene caoutchouc, DAB-butadiene-latex DVKhB-70- butadiene-Vinyliden-chloride-Latex, butadiene-nitril-caoutchouc SKN of three different makes, polysbutylene, some makes of Nairit, SKBM, chloroprene-latex, butadiene-styrol-caoutchouc SKS 30, and many others. The butadiene-methyl-styrol-caoutchouc (SKMS 30) is produced on an industrial basis in the Soviet-Union only. It is used on a large scale for the manufacture of tires. Further the oil-filled caoutchouc SKS-30 AM is produced, the technological properties of which by far surpass the "Butadien"-Styrol-caoutchouc. In 1956 the production of Silicon-caoutchouc (SKT) was substantially increased. It retains its properties at a temperature of - 60 to - 250° C. It is water, -acid- and oil-resistant and is

CARD 2/3

The Industry of Synthetic Rubber (caoutchouc) - on the 64 - 7 - 2/12  
Occasion of the 40th Anniversary of the Soviet Republic

proof against ultra-violet radiation. In the second  
half of 1956 the production of brombutyl-caoutchouc (for  
the insulating layer in solid tires) was begun.

AVAILABLE: Library of Congress

CARD 3/3

COORDIN, M.M., inzh.

Puller tool for the driving wheel of the S-80 and S-100 tractors.  
Mekh.stroi. 19 no.3:26 Mr '62. (MIRA 15:3)  
(Tractors)

SHFINDLER, D.L.; GORDIN, M.N.

Effect of cholagogues on the milk and butterfat yield of  
cows. Uch. zap. Kazakh. un. 41:186-187 '61. (MIRA 16:6)  
(CHOLAGOGUES) (DAIRY CATTLE--FEEDING AND FEEDS)

GORJIN, M.N.; KARIMOVA, R.F.

Hypotensive and some other properties of the herbage of the  
periwinkle Vinca minor. Vest. /N Kazakh. SSR. 19 no.5:91-95  
My '63. (MIRA 17:7)

Gordin, M. N.

MD The effect of darminol on the cardiovascular system.  
M. N. Gordin. Nauch. Issled. Kazakh. Med. Inst. 1953,  
No. 11: 141-9; Referat. Zhur. Khim., Biol. Khim. 1953, 7:  
2382. B. S. Levine

GORDIN, M.N.

✓ Local anesthetic and other pharmacological properties of the stereoisomers of 2,5-dimethyl-4-piperidyl benzoate. M. N. Gordin and G. I. Samarin (V. M. Molotov Kazakh State Med. Inst., Alma-Ata). Izv. Akad. Nauk Kazakh S.S.R., No. 130, Ser. Fiziol. i Med. No. 4, 97-104 (1954) (in Russian). — The 3 forms of 2,5-dimethyl-4-piperidyl benzoate (m.p. 205-6°, 197-8°, and 253-4°) were investigated. All 3 forms cause local anesthesia after application to a rabbit eye or skin of a frog; terminal anesthesia is best shown by the 3rd form (called C or γ). Aq. solns. cause anesthesia by infiltration. The order of toxicity rises from A to B to C (α, β, γ). Subcutaneous administration causes lowering of blood pressure; all 3 forms cause considerable contraction of peripheral blood vessels of the hind legs of a frog when used in soln. of 1:1000 diln.; all lower the tone of smooth muscle and produce transient paralysis of isolated rabbit intestine. None is suitable for clinical infiltration owing to toxicity. G. M. Kosolapoff

GORDIN, M.N.

Mechanism of the reaction of peripheral blood vessels to  
strophanthin. Farm. 1 toks. 18 no.6:44-47 N-D '55. (MLRA 9:3)

1. Kafedra farmakologii (sav.-prof. I.I. Sivertsev) Kazakhskogo  
gosudarstvennogo meditsinskogo instituta imeni V.M. Mosotova.

(STROPHANTHIN, effects,

on blood vessels of amputated extremity with neural  
connection with body, conditioned reflex mechanism of  
action)

(BLOOD VESSELS, effect of drugs on,

strophanthin, in amputated extremity with neural connections  
with body, conditioned reflex mechanism of action)

(REFLEX, CONDITIONED,

conditioned reactions of blood vessels to strophanthin in  
amputated extremity with neural connections with body)



GORDIN, M.N.; TURGANBAYEV, A.T.

The effect of santonin on intestinal contraction [with summary in English]. Farm. i toks. 21 no.1:71-73 Ja-F '58. (MIRA 11:4)

1. Kafedra farmakologii (zav.-prof. I.I. Sivertsev) Kazakhskogo gosudarstvennogo meditsinskogo instituta i rentgenovskiy kabinet. Instituta klinicheskoy i eksperimental'noy khirurgii AN Kazakhskoy SSR.

(ANTHELMINTICS, effects

santonin on intestinal motility & contractions in cats (Rus)

(INTESTINES, physiology

motility & contractions, eff. of santonin on cats (Rus)

GORDIN, M.N., kand.med.nauk

Change in body reaction to the influence of local anesthetics during various periods in radiation sickness. Zdrav. Kazakh. 21 no.1:65-69 '61. (MIRA 14:3)

1. Iz kafedr farmakologii, (zav. - professor I.I.Sivertsev [deceased]) rentgenologii i radiologii (zav. - doktor meditsinskikh nauk S.B. Balmukhanov) Kazakhskogo meditsinskogo instituta.  
(LOCAL ANESTHESIA) (RADIATION SICKNESS)  
(BODY TEMPERATURE)

GOVOROV, A.A.; KOSHKIN, V.A.; GORDIN, O.V.; TUZOVSKIY, A.I.; SAKHAROVA, N.A.;  
LYMAR', A.I.

Effect of the temperature of the end of rolling on the mechanical  
properties of rail steel. Izv. vys. ucheb. zav.; chern. met.  
6 no.8:137-140 '63. (MIRA 16:11)

1. Sibirskiy metallurgicheskiy institut i Kuznetskiy  
metallurgicheskiy kombinat.

GRDINA, Yu.V.; KOSHKIN, V.A.; GORDIN, O.V.; SAKHAROVA, N.A.

Inoculation of rail steel. Izv. vys. ucheb. zav.; chern. met.  
6 no.10:129-133 '63. (MIRA 16:12)

1. Sibirskiy metallurgicheskiy institut.

GRDINA, Yu.V.; GORDIN, O.V.

Characteristics of the mechanism of inoculating rail steel.  
Izv. vys. ucheb. zav.; chern. met. 6 no.12:152-157 '63.  
(MIRA 17:1)

1. Sibirskiy metallurgicheskii institut.

GRDINA, Yu.V.; GORDIN, O.V.

Dependence of impact toughness in rail steel on the finishing  
temperature. Izv.vys.ucheb.zav.; chern.met. 8 no.8:114-117 '65.  
(MIRA 18:8)

1. Sibirskiy metallurgicheskiy institut.

I 212/8-66 EWT(m)/ETC(f)/EPF(n)-2/ENG(m)/I/EWP(t)/EWP(k) IJP(c) JD/HW/JG/WB  
 ACC NR: AP6007928 SOURCE CODE: UR/0148/66/000/002/0119/0121

AUTHOR: Grdina, Yu. V.; Tarasko, D. I.; Dadochkin, N. V.; Gordin, O. V.

ORG: Siberian Metallurgical Institute (Sibirskiy metallurgicheskiy institut) 87  
 86  
 B

TITLE: Rapid oxidation-free heating of metals for rolling

SOURCE: IVUZ. Chernaya metallurgiya, no. 2, 1966, 119-121

TOPIC TAGS: steel, refractory metal, molybdenum, tungsten, niobium, steel heating, refractory metal heating, oxidation free heating, metal oxidation, oxidation prevention / 60S2 steel, 45G steel, steel 5

ABSTRACT: In a search for an effective and inexpensive method of heating steels and refractory metals for forging, rolling, and extrusion, molten glass has been tested as a heating medium. Specimens of steels 60S2, 45G, St5, and molybdenum, tungsten, and niobium were heated up to 1100-1350C in molten glass (71.88% SiO<sub>2</sub>, 1.11% Al<sub>2</sub>O<sub>3</sub>, 1.5% Fe<sub>2</sub>O<sub>3</sub>, 7.32% CaO, 2.27% MgO, 14.15% K<sub>2</sub>O + Na<sub>2</sub>O) for 5 min to 3 hr. No sign of oxidation was observed on any specimen. On the other hand, 60S2 steel conventionally heated to 1150C was extensively oxidized after holding 20 min. This type of steel, badly affected by decarbonization in conventional heating, showed no sign of decarbonization when

Card 1/2 UDC: 669.046-947

GORDIN, P.V., inzh.

Studying the tension of the basic parts of the D-170 diesel engine. Trakt. i sel'khoz mash. no.11:4-6 N '65. (MIRA 18:12)

1. Tsentral'nyy nauchno-issledovatel'skiy dizel'nyy institut.



GORDIN TS G.  
GORDIN, TS. G., inzh.

Lowering the cost of constructing industrial buildings by modifying  
the crane system. *Biul. stroi. tekhn.* 14 no.12:16 D '57. (MIRA 11:1)

1. Leningradskoye otdeleniye Gosudarstvennogo proyektного instituta  
Proyektstal'konstruktsiya.  
(Building--Costs) (Cranes, derricks, etc.)

LEMLEKH, Izrail Moiseyevich; GORDIN, Veniamin Avseyevich; VAGIN, A.A.,  
red.; ATTOPOVICH, M.K., tekhn. red. [deceased]

[High temperature preheating of air in ferrous metallurgy] Vy-  
sokotemperaturnyi nagrev vozdukha v chernoi metallurgii. Mo-  
skva, Metallurgizdat, 1963. 352 p. (MIRA 16:3)  
(Air preheaters)  
(Metallurgical furnaces)

GORDIN, V.A.

Standardization bureau at the Rybinsk Road-Machinery Plant.  
Standartizatsiia 27 no.12:40-41 D '63. (MIRA 17:4)

S/137/61/000/001/013/043  
A006/A001

Translation from: Referativnyi zhurnal, Metallurgiya, 1961, No. 1, p. 23,  
# 1D198

AUTHOR: Gordin, V.B.

TITLE: Problems of Calculating a Hydraulic Forging Press With Multiplicator and Pump-Accumulator Drives

PERIODICAL: V. sb. "Osnovn. vopr. razvitiya kuznechno-shtamp. proiz-va", Moscow, 1958, pp. 553 - 575

TEXT: The operational stroke, the back stroke and the filling stroke are calculated for accumulator and multiplier drives. It is shown that the speed of the operational stroke depends, basically, on the dimensions of the pressure pipeline, the moving masses and the law of changes in the resistance of the forging. To maintain a constant vapor pressure, the dimensions of the vapor inlet valve have to be increased. It is recommended to use a pneumatic pistonless accumulator in presses intended to be used for processes with falling technological resistance. The hoisting force depends on the hoisting rate, pressure in the

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S/137/61/000/001/013/043  
A006/A001

Problems of Calculating a Hydraulic Forging Press With Multiplier and Pump-Accumulator Drives

filling tank and the dimensions of the reverse pipe. The given coefficient of resistance of the reverse pipe is determined from the given hoisting speed. The pipe is calculated from the found coefficient. The speed of the idle stroke is determined from the dimensions of the filling pipe and the pressure in the filling tank. For vertical presses the pressure in the filling tank should be used equal to 4.5 kg/cm<sup>2</sup>. ✓

Ye. M.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

PHASE I BOOK EXPLOITATION

SOV/4713

Gordin, Vul'f Borisovich, Candidate of Technical Sciences

Teoreticheskiye osnovy gidravlicheskogo rascheta kovochnykh pressov  
(Theoretical Principles of Designing Hydraulic Forging Presses)  
Moscow, Mashgiz, 1960. 83 p. Errata slip inserted. 3,000  
copies printed.

Reviewers: I. M. Din, Engineer, and E. I. Goloskov; Ed.: V. A.  
Mikheyev, Engineer; Managing Ed. for Literature on Machine-  
Building Technology (Leningrad Department, Mashgiz): Ye. P.  
Naumov, Engineer; Ed. of Publishing House: M. A. Chfas; Tech.  
Ed.: O. V. Speranskaya.

PURPOSE: This book is intended for design engineers of hydraulic  
presses and mechanical engineers in hydraulic-press shops and  
may be useful to students of mechanical engineering in schools  
of higher education.

COVERAGE: The book contains an analysis of the working cycle of a  
hydraulic forging press and calculation formulas for determining  
the dimensions of the working parts of the press and the drive.

Card 1/3

Theoretical Principles (Cont.)

SOV/4713

The calculation formulas presented in the book show the in-  
fluence of separate parameters of the press unit on its perfor-  
mance. The formulas also make it possible to select a suitable  
press arrangement, to determine the pressure of the hydraulic  
fluid and the steam pressure for steam-hydraulic presses, and  
can be used as an aid for making judgments as to the merits of  
various designs. No personalities are mentioned. There are  
26 references, all Soviet.

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| Ch. 2. The Opening Stroke   | 33 |
| Ch. 3. The Filling Stroke (The Idle Downstroke)   | 41 |
| Ch. 4. Investigating the Influence of Certain Parameters of the<br>Unit on the Performance of the Press | 48 |

Card 2/3

GORDIN, V.B.

PHASE I BOOK EXPLOITATION

SOV/5658

Ivanov, Aleksandr Petrovich, Candidate of Technical Sciences, and  
Viktor Dmitriyevich Lisitsyn, Candidate of Technical Sciences,  
eds.

Modernizatsiya kuznechno-shtampovogo oborudovaniya (Moderni-  
zation of Die-Forging Equipment) Moscow, Mashgiz, 1961. 226 p.  
Errata slip inserted. 10,000 copies printed.

Reviewer: V. Ye. Nedorezov, Candidate of Technical Sciences; Ed.  
of Publishing House: T. L. Leykina; Tech. Ed.: A. A. Bardina;  
Managing Ed. for Literature on Machine-Building Technology  
(Leningrad Department, Mashgiz): Ye. P. Naumov, Engineer.

PURPOSE: This book is intended for foremen, machinists, designers,  
and process engineers concerned with the modernization and de-  
signing of die-forging equipment. It may also be used by students  
at schools of higher education.

COVERAGE: The book contains material presented at the Conference

Card 1/8

Modernization of Die-Forging Equipment

SOV/5658

on Problems in the Modernization and Operation of Die-Forging Equipment, held in November 1958 in Leningrad. The Conference was called by Leningradskiy Sovet narodnogo khozyaystva, Sektsiya obrabotki metallov davleniyem Leningradskogo oblastnogo pravleniya NTO Mashprom (Leningrad Council of the National Economy, Section of Metal Pressworking at the Leningrad Oblast Board of the Scientific and Technical Society of the Machine Industry) and Leningradskiy mekhanicheskii institut (Leningrad Mechanical Engineering Institute). Actual problems in the modernization, operation, and repair of die-forging equipment are described. Analyses are provided for problems involved in the mechanization and automation of die-forging and stamping operations. Also included are practical data to be used in the modernization of equipment. No personalities are mentioned. There are 59 references: 56 Soviet, 2 German, and 1 English.

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Candidates of Technical Sciences) 203

Bibliography

AVAILABLE: Library of Congress

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11-7-61

Card 8/8

ACC NR: AT7003268

(N)

SOURCE CODE: UR/2563/66/000/263/0079/0088

AUTHORS: Gordin, V. B.; Yefimov, I. A.

ORG: none

TITLE: Determining the parameters of apparatus for finish rolling of blades

SOURCE: Leningrad. Politekhnikheskiy institut. Trudy, no. 263, 1966. Mashiny i tekhnologiya obrabotki metallov davleniyem (Machinery and technology of metalworking by pressure), 79-88

TOPIC TAGS: cold rolling, turbine blade, rolling mill, metal forming press, steel alloy, metal deformation hardness, steel/ EI765 steel, 20 steel, U10A steel, 2Kh13 steel

ABSTRACT: Determination of the parameters of a cold-rolling mill for turbine blades of 90 x 500 mm of EI765 steel (see Fig. 1) is discussed. The specific flow pressure and maximum allowable deformation were determined with specimens of EI765 steel with a width of 16 mm and thicknesses of 3, 4, 7, 9, 11, and 14 mm. The hardness was HRC 26, and the surface roughness was V 7. The blocks were made of U10A steel heat-treated to HRC 62. The degree of deformation at which failure of the specimens occurred increased with a decrease in thickness. The allowable degree of deformation was found to be 8.5% (see Fig. 2). Specimens of 20 and 2Kh13 steel were also used in determining the torque required for blade twisting. A formula is given for determining the

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ACC NR: AT7003268

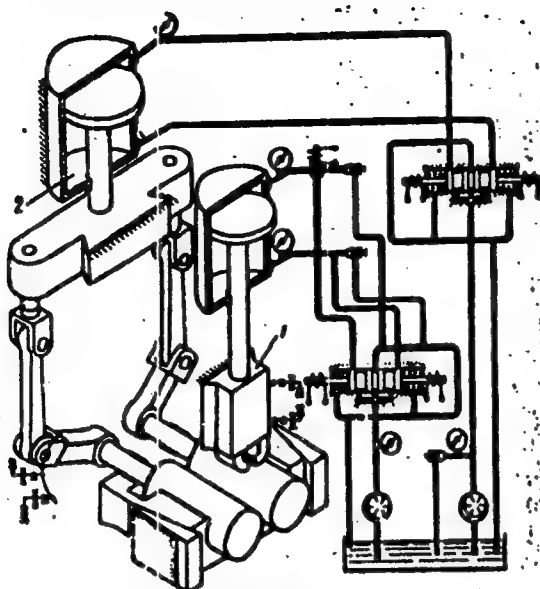


Fig. 1. Kinematic diagram of cold-rolling mill for turbine blades

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ACC NR: AT7003268

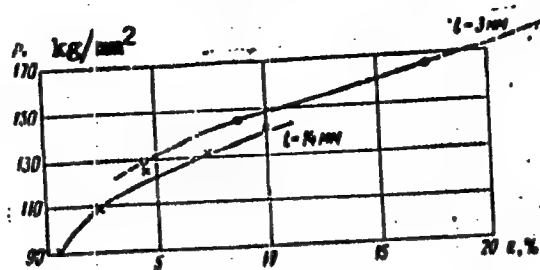


Fig. 2. Specific flow pressure  $p$  versus degree of deformation  $\epsilon$  for specimens of various thicknesses

clamping force. The force required with the described rolling mill is lower by a factor of 28 than that required with mechanical presses. Docent A. P. Atroshenko and engineer Yu. I. Yegorov participated in the experimental work. Orig. art. has: 6 graphs, 2 diagrams, and 12 formulas.

SUB CODE: 13/ SUBM DATE: none/ OTH REF: 001  
10/

Card 3/3

S/078/62/007/003/019/019  
B110/B138AUTHORS: Ugay, Ya. A., Gordin, V. L.TITLE: Production and investigation of some of the properties of  
 $\text{Hg}_3\text{Sb}_2$ 

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 3, 1962, 703 - 705

TEXT:  $\text{Hg}_3\text{Sb}_2$ , which is a chemical analogy to the metallides  $\text{Zn}_3\text{Sb}_2$  and  $\text{Cd}_3\text{Sb}_2$ , could not be produced directly from its elements by S. A. Vekshinskiy's method (Novyy metod metallograficheskogo issledovaniya splavov (New method for the metallographical study of alloys), CONTI, 1944). Stibine, obtained by the action of hydrochloric acid solution of  $\text{SbCl}_3$  on Mg metal, was passed through a mixture of  $\text{HgCl}_2$  with sugar. A tall molybdenum glass column 3 cm in diameter was filled up to  $2/3$  with Mg metal type Mr-1 (Mg-1).  $\text{CaCl}_2$  on a porous diaphragm at the top of the column was ice cooled from outside. A No. 1 Schott funnel inserted in the column contained twice recrystallized  $\text{HgCl}_2$  mixed with sugar. The hydro-

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S/078/62/007/003/019/019  
B110/B138

Production and investigation...

chloric acid solution of  $\text{SbCl}_3$ , introduced into the lower end of the column produced:  $\text{SbCl}_3 + 3\text{HCl} + 3\text{Mg} = 3\text{MgCl}_2 + \text{SbH}_3\uparrow$ .  $\text{SbH}_3$  was dried with  $\text{CaCl}_2$  and reacted as follows:  $3\text{HgCl}_2 + 2\text{SbH}_3 = \text{Hg}_3\text{Sb}_2 + 6\text{HCl}\uparrow$ . The reaction took 2 - 3 hrs. The specific gravity of the powdery heavy gray  $\text{Hg}_3\text{Sb}_2$ , determined pyknometrically, was  $6.0 \text{ g/cm}^3$ . When heated in air  $\text{Hg}_3\text{Sb}_2$  decomposes to mercury and antimony oxides around  $400^\circ\text{C}$ , and if heated in vacuum, into its elements at above  $450^\circ\text{C}$ . It is practically insoluble in water, alkali, and hydrochloric acid, partly soluble in concentrated  $\text{HNO}_3$ , and highly soluble in boiling  $\text{H}_2\text{SO}_4$  and aqua regia. When left in air it moistens after 2-3 weeks and Hg drops separate. Its electrical resistivity, by the compensation method and a  $\text{MMTB-1}$  (PPTV-1) potentiometer measured on a tablet pressed from the powder ( $250 \text{ kg/cm}^2$ ), was  $10^{12} \text{ ohms}\cdot\text{cm}$ . In cast  $\text{Hg}_3\text{Sb}_2$  at room temperature conductivity is  $\sim 10^{-11} \text{ ohm}^{-1}\cdot\text{cm}^{-1}$ . The sign of the thermo-e.m.f. points to hole conductivity. The logarithmic temperature dependence,  $\log \sigma = f(10^3/T)$ , of specific conductivity at  $7\cdot 10^{-3} \text{ mm Hg}$  shows that dissociation begins at

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Production and investigation...

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B110/B138

370°C ( $3.8 \pm 0.2$  eV). As the valence and conduction bands are far apart,  $\text{Hg}_3\text{Sb}_2$  is close to the dielectrics. Good absorption properties prove the nonmetallic character of its chemical bond. There are 2 figures and 9 references: 7 Soviet and 2 non-Soviet. The reference to the English-language publication reads as follows: Mellor's Comprehensive Treatise on Inorganic and Theoretical Chemistry, 9, p. 391, 1947.

ASSOCIATION: Voronezhskiy gosudarstvennyy universitet (Voronezh State University)

SUBMITTED: September 28, 1960

Card 3/3

L 23903-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG

ACCESSION NR: AP4009355

S/0078/64/009/001/0218/0220

AUTHOR: Ugay, Ya.; Gordin, V. L.; Anolchin, V. Z.

TITLE: The preparation and certain properties of beryllium antimonide  $\text{Be}_3\text{Sb}_2$

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 1, 1964, 218-220

TOPIC TAGS: beryllium antimonide synthesis, beryllium antimonide, property, electric resistance, conductivity, beryllium antimonide

ABSTRACT: The study of the Be-Sb system indicates formation of one compound— $\text{Be}_3\text{Sb}_2$ . Vaporization in a high vacuum furnace was conducted in graphite cylinders; the beryllium readily dissolves tungsten and tantalum. The formation of a compound between Be and Sb depends on the temperature of the backing. The compound  $\text{Be}_3\text{Sb}_2$  is stable in air; data on its electric resistance and the temperature-conductivity function are shown in the enclosures. Orig. art. has 2 figures.

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L 23903-65

ACCESSION NR: AP4009355

ASSOCIATION: Voronezhskiy gosudarstvennyy universitet (Voronezh State University)

SUBMITTED: 11Oct62

ENCL: 01

SUB CODE: 10,60

NO REF SOV: 005

OTHER: 000

Card 2/3

L 14644-66 EWT(1) GW  
ACC NR: AT6004295

SOURCE CODE: UR/3175/65/000/026/0044/0048

AUTHOR: Ab, E. A.; Gordin, V. L.; Levitin, A. I.; Filippov, V. A.

ORG: none

TITLE: A portable source of ultraviolet radiation

SOURCE: USSR. Gosudarstvennyy geologicheskiiy komitet. Osoboye konstruktorskoye byuro. Geofizicheskaya apparatura, no. 26, 1965, 44-48.

TOPIC TAGS: <sup>12,44,55</sup> UV light source, <sup>12,44,55</sup> spectral distribution

ABSTRACT: The authors describe a portable radiation source designed for operation in the UV region of the spectrum at about 254 and 320-400 mμ. The spherical envelope of the tube is made from ordinary uvioi glass and is about 15 mm in diameter with a wall thickness of the order of fractions of a millimeter. The radiation spectrum of the tube may be expanded by coating the inside of the envelope with a phosphorescent material which emits radiation in the desired spectral region. If part of the surface of the envelope is left unccated (a "window"), the same tube may be used for bidirectional radiation in different spectral regions. Optimum supply fre-

Card 1/2

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L 14646-66  
ACC NR: AT6004295

2  
quency was found to be of the order of 100 Mc. A power of the order of 12 w and a frequency of about 100 Mc gave a surface radiation density in the 254 mμ range approximately fifty times that of BUW-15 tubes (15 w) and nearly equal to the surface density for PRK tubes. Application of L-33 phosphor increases emission in the 320-400 mμ with a surface radiation density approximately 30-40 times that of the UFO-4A tube which has similar spectral distribution. An increase in tube power is not recommended since it may darken or melt the glass of the envelope. Tables and curves are given illustrating the characteristics of spectral distribution for emission from these tubes. The authors are sincerely grateful to L. A. Khutsishvili and N. N. Klimenko for their participation in this work. Orig. art. has: 3 figures, 2 tables.

SUB CODE: 20/

SUBM DATE: 00/

ORIG REF: 004/

OTH REF: 001

Card 2/2 *AK*



L 1855-56 ENT(1)/EPA(s)-2/ENT(m)/EPF(n)-2/T/ENP(t)/ENP(b)/EMA(c) IJP(c)  
JD/WW/JJ/CG

ACCESSION NR: AP5022252

UR/0363/65/001/007/1051/1053  
546.682'181.1.548.55

AUTHOR: Ugay, Ya. A.; Gordin, V. L.

TITLE: Growing indium phosphide single crystals

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 7, 1965, 1051-1053

TOPIC TAGS: single crystal, indium, indium compound, phosphide, semiconductor single crystal, single crystal growth, single crystal growing, crystallization, crystal property, electric property, indium phosphide, melt crystallization, crystal electric property

ABSTRACT: Indium phosphide single crystals have been obtained by a slow (1.3—1.5 mm/hr) crystallization from melt of stoichiometric composition under 40 atm of phosphorus pressure in a thick-walled horizontal quartz ampul. Originally, the ampul contained indium and phosphorus separated by a drawn-out portion. The ampul was heated in a two-zone resistance furnace. A gradual increase in voltage made possible a gradual progress of crystallization front in the indium zone of the ampul. The advantages of this technique were stressed in comparison.

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ACCESSION NR: AP5022252

with the technique of pulling the crystal from the melt. The x-ray diffraction pattern showed that the ingot obtained was single crystalline over nearly 2/3 of its length. Single crystals 10—12 mm in diameter and 70—100 mm long were obtained. The crystals had an n-type conductivity, thermoelectric power of 150  $\mu\text{V}/\text{deg}$ , carrier concentration of  $(2.0—3.0) \times 10^{16} \text{ cm}^{-3}$ , and a carrier mobility of 6000  $\text{cm}^2/\text{v}\cdot\text{sec}$  at room temperature. The latter value exceeded all previously known from the literature and indicated the good quality of the crystals. The electrical characteristics may be improved, e.g., by crucibleless zone-melting. Orig. art. has: 3 figures. [JK]

ASSOCIATION: Voronezhskiy gosudarstvennyy universitet (Voronezh State University)

SUBMITTED: 10Apr65

ENCL: 00

SUB CODE: SS

NO REF SOV: 001

OTHER: 004

ATD PRESS: 4087

Cord 1/2

ACC NR: AP7013719

SOURCE CODE: UR/0154/66/000/001/0079/0083

AUTHOR: Aronov, V. I. (Candidate of physico-mathematical sciences); Gordin, V. M. (Student)

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Computation of the values  $V_{zz}$  in a mountainous region

SOURCE: IVUZ. Geodesiya i aerofotos"yemka, no. 1, 1966, 79-83

TOPIC TAGS: Poisson equation, earth gravity

SUB CODE: 08

ABSTRACT: For computing the values  $V_{zz}$  from gravity anomalies it is customary to use a formula obtained by differentiation of the Poisson integral for the vertical coordinate. In mountain regions where the observations are made at different elevations the accuracy of computations is low when that formula is used. The errors may be tens or even hundreds of percent of the computed value and in some cases the  $V_{zz}$  anomalies may reverse signs. A method was proposed by M. K. Kartvelishvili for computing  $V_{zz}$ , taking into account the difference in elevation of stations. The method was based on the M. S. Molodenskiy equations

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proposed for computing plumb-line deflections and reduction of gravity anomalies to an external plane, but computations were not given on models characterizing the accuracy of the method. Accordingly, the author of this paper proposes a relatively simple method for computing  $V_{zz}$  in a mountainous region. Three examples of computations are given. Even under difficult conditions the accuracy is high. In the case of a large number of iterations the method is equal in accuracy to computations based directly on the theoretical values  $\Delta g$  given on a plane passing directly through the computed point, and in some cases exceeding it. The accuracy in computing  $V_{zz}$  in a mountainous region by this method is equal to the accuracy for a lowland region. The same can be demonstrated for the computation of the horizontal derivative of potential and reduction of gravity anomalies. Orig. art. has: 1 figure, 3 formulas and 4 tables.

[JPRS: 40,496]

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GORDINA, A. M.

## MINING & ROCK EXPLOITATION

507/4273

PHASE I AND PHASE II  
 Vsesoyuznoye soveshchaniye po fizike. fiziko-khimicheskimi svoystvami  
 i fizicheskimi osnovam i khimicheskimi svoystvami. 36, Minsk, 1959  
 Periyodicheskiye doklady i fiziko-khimicheskkiye svoystva. Doklady  
 i fizicheskiye osnovam i khimicheskkiye svoystva. Reports  
 and Physical and Physicochemical Properties. Reports)  
 Minsk. Izd-vo AN BSSR, 1960. 695 p. Izdava aliip inserted.  
 b.000 copies printed.

4,000 copies printed.

[illegible]

2. A. I. Volokhanovich. This book is intended for physicists, physical chemists, and engineers. It contains a detailed treatment of the physical aspects of radio electronics engineering, and also of the physical aspects of the production and use of ferromagnetic materials. It may also be used by students in advanced courses in radio electronics, physics, and physical chemistry.

**CONTENTS.** The book contains reports presented at the Third All-Union Conference on Ferrites held in Minsk, Belorussian SSR. The reports deal with magnetic transformations, electrical and magnetoelectric properties of ferrites, theory of the growth of ferroelectric domains, problems of the chemical and physical analysis of ferrite single crystals, studies of ferrites having cochemical analysis of ferrites, multicomponent ferrite systems containing spinel-type ferrites, problems in magnetic exhibiting spontaneous magnetization, magnetic spectroscopy, attraction, highly anisotropic ferrites, physical principles of ferroelectric components in electrical circuits, anisotropic ferrites and magnetic properties, etc. The Committee on Magnetism of the USSR Academy of Sciences (Chairman) organized the conference. AS USSR (S. V. Vonnosovskiy, Chairman) organized the conference. References accompany individual articles.

## Page 12a (cont.)

507/2993

Ferrites (Cont.)

|  | Polakow, T. I., and L. S. Ozer, Magnetochemical In- |
|--|---|
|  | Stable-Cobalt Ferrites                              |

Investigation of Nickel-Cobalt  
Yermayev, V. I., and A. M. Gordina.  
New Ferrites for the  
142

100-1000mc frequency range.

|  | 1. I. and 2. I. Movikors                 | Some Properties of |
|--|--|--------------------|
|  | Nickel-Zinc Ferrites, Dependent Upon the | Conditions of      |
|  | Content of $Fe^{2+}$ Ions                |                    |

Synthesis and Their Contents of the  
of the P. Discussion of the (Preceding) Report

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Башкиров, Л. А. А. Ф. Палкин, and N. M. Sirota. X-Ray Structural Investigation of the Ternary System  $\text{Ca-Mg-Al}_2\text{O}_3\text{-ZnO}$  159

$\text{NiFe}_2\text{O}_4$ - $\text{AgFe}_2\text{O}_4$  and  
 Molodtsov, I. V. and N. N. Sirota. Investigation of  
 the Effect of Composition on the Properties of Magnesium-  
 Manganese Ferrites

05/9 6/18

800-4-A-STAR

L 54997-65 ENG(j)/ENT(l)/ENT(m)/EPF(c)/EPF(n)-2/EPR/T/EWP(t)/EEG(b)-2/EWP(b)/  
EWA(c) Pr-l/Pr-l/Pu-l/Pi-l IJP(c) ID/WJ/JW/JG/GG

ACCESSION NR: AP5011939

UR/0363/65/001/003/0408/0412  
546.723'711'21:548.19

AUTHOR: Tret'yakov, Yu. D.; Saksonov, Yu. G.; Gordeyev, I. V.; Zayonchkovskiy, Ya. A. Gordina, A. N.

TITLE: Correlation between dissociation pressure and crystal lattice parameters of manganese-containing multicomponent ferrites

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 3, 1965, 408-412

TOPIC TAGS: manganese ferrite, dissociation, thermal stability, lattice parameter

ABSTRACT: An attempt was made to correlate the dissociation pressure of the solid solution ( $MnFe_{3-x}O_4$ ) and the lattice parameter  $a$  on the basis of thermodynamic and x-ray data. The object of the study was to develop a method of predicting thermal stability of manganese-containing multicomponent ferrites, materials widely used in the electronic industry and purification technology. Several solid solutions of  $MnFe_{3-x}O_4$  ( $0 \leq x \leq 3$ ) containing  $MgO$ ,  $ZnO$ , and  $CaO$  were prepared by fusing mixtures of these oxides for 5 hours at  $1000^\circ C$ . Dissociation pressures for several

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ACCESSION NR: AP5011939

Mn-Fe<sub>3</sub>O<sub>4</sub> solid solutions and mixtures of ferrites were measured in the 800-1200°C temperature range. There is an irregularity between composition and the change of lattice parameter  $a$  of the solid solutions of magnetite (Fe<sub>3</sub>O<sub>4</sub>) and hausmannite (Mn<sub>3</sub>O<sub>4</sub>). This irregularity is due to interchangeable replacement of iron in magnetite with Mn<sup>2+</sup> and Mn<sup>3+</sup> ions. In the 800-1100°C temperature range there is a correlation between the dissociation pressure of the manganese-containing multicomponent ferrites and the crystal lattice parameter  $a$ . This correlation is independent of the nature of complementary components present in the manganese-containing ferrite. For the Fe<sub>3</sub>O<sub>4</sub>-MnFeO<sub>4</sub> system, the lattice parameter  $a$  increases in proportion to replacement of Fe<sup>3+</sup> ions ( $r = 0.67 \text{ \AA}$ ), in Fe<sup>3+</sup>[Fe<sup>2+</sup>Fe<sup>3+</sup>]<sub>4</sub> tetrahedra with Mn<sup>2+</sup> ions ( $r = 0.91 \text{ \AA}$ ). In the MnFe<sub>2</sub>O<sub>4</sub>-Mn<sub>3</sub>O<sub>4</sub> system, the changes in the lattice parameter  $a$  are small since Fe<sup>3+</sup> ions in the Mn<sup>2+</sup>[Fe<sub>2</sub>]<sub>4</sub> octahedral spinel units are replaced with Mn<sup>3+</sup> ions ( $r = 0.70 \text{ \AA}$ ). Orig. art. has: 2 tables and 3 figures.

ASSOCIATION: Khimicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova (Department of Chemistry, Moscow State University)

SUBMITTED: 01Feb64

ENCL: 00

SUB CODE: EC, SS

NO REF SOV: 006

OTHER: 008

Card 1/2

TRSI'YAKOV, Yu.P.; GORDINA, A.M.

Synthesis of ferrites with a rectangle hysteresis loop from isomorphous  
ashoenites. Vest.Mosk.un.Ser.2:Khim. 20 no.3:67-70 My-Je '65.  
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sputum to streptomycin and phthivazid. Lab.delo 3 no.6:25-26 N-D '57.  
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1. Iz Khar'kovskogo nauchno-issledovatel'skogo instituta vaktsin i  
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GORDINA, G.V.; LAZURENKO, I.S.; KASPAROVA, T.Yu.

Duration of immunity in children inoculated with a whooping  
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Vibration neuritis among shoe factory workers. Vrach.delo no.1:  
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Abs Jour : Ref Zhur - Biologiya, No 5, 1959, No. 19541

Author : Gordina, P. V.; Lazurenko, I. S.; Remova,  
T. N.; Silakova, A. V.; Tsetkov, V. S.

Inst : Not given

Title : The Reaction of Whooping Cough and Whooping  
Cough-Diphtheria Vaccine

Orig Pub : Zh. mikrobiol., epidemiol. i immunobiol.,  
1958, No 6, 21-26

Abstract : No abstract given

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GORDINA, R. V.

Epidsektora United Inst. Epidemiol. and Microbiol., NKZDRAVA (People's Commissariat of Public Health), (-1944-).

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"Differentiation of the Strains of Paratyphus-B Group."

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"Phage Types of Paratyphoid B Bacteria, and the Action on Them of V1 Bacteriophage and Others." Proceedings of Inst. Epidem and Microbiol im. Gamaleya 1954-56.

Dissertation Critically Analyzed at Sessions of the Scientific Council During 1953. Inst. Epidem and Microbiol im. Gamaleya AMS USSR

SO: Sum 1186, 11 Jan 57.

Name CORDINA, Raisa Vladimirovna

Dissertation Phagotypes of Paratyphoid B Bacteria  
and the affect upon them of Vi-  
Bacteriophages

Degree Doc Med Sci

Affiliation [not indicated]

Defense Date, Place 14 Jan 56, Council of the Department  
of Hygiene, Microbiology, and  
Epidemiology, Acad Med Sci USSR

2  
Certification Date 29 Dec 56

Source BMVO 7/57

Specific Prevention of Pertussis, published by MEDIC, MOSCOW, 1958  
ed. by N. P. Zakharenko, Dir. Inst. of Specific Prophylaxis of Pertussis,  
Inst. Hygiene and Microbiol. in N.P. Gumbayev,  
and. Medical Sci. USSR

In the scientific conference on the specific prophylaxis of pertussis conducted by  
the Institute of Hygiene and Microbiology in N. P. Gumbayev, Acad. Medical Sci.  
USSR, together with other institutes and medical establishments, papers were read by  
the following: (See Table of Contents)

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| N. P. Zakharenko (Inst. of Hygiene and Microbiol. in N. P. Gumbayev<br>and USSR): Problem of specific prophylaxis of pertussis  | 3   |
| N. P. Zakharenko and I. S. Zakharenko (see also Zakharenko): Effectiveness<br>of pertussis immunization in epidemiologic observations   | 19  |
| N. A. Budach'yan (Bel Moscow Med. Inst. in N. P. Gumbayev): Clinical-<br>epidemiologic effectiveness of the pertussis vaccine in epidemics  | 29  |
| A. V. Silchenko (Inst. of Pediatrics and USSR): Clinical study of<br>reactions in children vaccinated with pertussis vaccine  | 37  |
| T. S. Pilyonova et al. (USSR Inst. of Hygiene and Microbiol. and<br>Hygiene and Inst. for the Care of Mothers and Children of the<br>Soviet Union): Study of the effectiveness of immunization against<br>pertussis                                   | 46  |
| N. S. Kozlovskaya and N. I. Rudoyev (Central Scientific Res. Lab.<br>of Hygiene and Epidemiology of the Ministry of Communications,<br>USSR): Effectiveness of vaccination with pertussis vaccine among<br>infants in the Moscow Railroad by Nursery. | 53  |
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| N. V. Gerdina and T. B. Kovaleva (see above): Epidemiologic effectiveness<br>of pertussis-diphtheria vaccination  | 64  |
| L. A. Shchegoleva (Republican Sanitary-Epidemiologic Station of the<br>Ministry of Health of the Republic of the USSR): Epidemiologic and<br>immunologic effectiveness and reactivity of the pertussis-<br>diphtheria vaccine                         | 70  |
| I. P. Vasil'yevskiy et al. (USSR Scientific Res. Inst. for Vaccines<br>and Sera): Reactogenicity and epidemiologic effectiveness of<br>adsorbed pertussis-diphtheria and pertussis vaccine  | 87  |
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| N. S. Kozlovskaya et al. (The Central, etc. see Kozlovskaya above):<br>Reactivity in the case of pertussis and pertussis-diphtheria vaccine<br>in children: Institution of the Railroad Transport System  | 101 |
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GORDINA, R.V. doktor med.nauk (Moskva)

Specific prevention of whooping cough. Fel'd. i akush. 23 no.12:  
24-26 D '58 (MIRA 11:12)  
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